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| Name: | Date: |
| Course/Subject: Keystone Algebra II | Team: Math Department |
| Topic: V Applications of Functions | School District: Blue Mountain |

Key Learning: Graph, analyze, and interpret the graphs of various functions to relate them to the real-world.

Unit Essential Question: How can we use the graphs of various functions and apply them to the real-world?

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| Concept: Graph quadratic equations and functions | Concept: Graph logarithmic functions | Concept: Graph exponential functions |
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| Lesson Essential Questions:   * What skills are needed to graph a quadratic equation and function? * What are some real-world examples that use quadratic functions? (ET) | Lesson Essential Questions:   * What skills are needed to graph a logarithmic equation and function? * What are some real-world examples that use logarithmic functions? (ET) | Lesson Essential Questions:   * What skills are needed to graph an exponential equation and function? * How can we write and graph an exponential function to model growth or decay? (ET) |
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| Vocabulary: | Vocabulary:   * base * exponent | Vocabulary:   * exponential growth * exponential decay * continuous compound interest |
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| Additional Information/Resources: We will be using the graphing calculator to explore these functions. | | |

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| Concept: Problem Solving through Graph Analysis | Concept: | Concept: | Concept: | Concept: |
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| Lesson Essential Questions:   * How do we analyze a graph of a quadratic, logarithmic, or exponential function to solve a real-world problem? (ET) | Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: |
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| Vocabulary: | Vocabulary: | Vocabulary: | Vocabulary: | Vocabulary: |